LIBERALIZATION what does it all mean?

IS IT A TIME FOR CHANGE FOR THE ENGINEERING INDUSTRY & THE LAWS THAT GOVERNED IT?

Towards achieving a high income nation status by 2020 ...

Board of Engineers Malaysia (BEM)



CONTENTS

PART 1	THE PROFESSIONAL ACTS HAVE PREVIOUSLY BEEN AMENDED SEVERAL TIMES SINCE 1967
	Primarily to 'plug' the 'loopholes' as the profession evolved
PART 2	THE AMENDMENTS TO THE REGISTRATION OF ENGINERS ACT Primarily driven by the Government's commitments in International Free Trade Agreements (FTA)
PART 3	IS MALAYSIA'S ECONOMY PROGRESSING TOWARDS A DEVELOPED NATION STATUS ?
	Or slowing down and needs to be changed & fixed
PART 4	HOW DO WE GET BACK ON TRACK
	To transform the Malaysian economy
PART 5	FOR THE SERVICES SECTOR THESE HAVE BEEN IDENTIFIED BY THE GOVERNMENT
	Under the IMP3 & NKEA (Strategic Reform Initiatives)

CONTENTS

PART 6 FOR THE PROFESSIONAL SERVICES THE GOVERNMENT HAS UNDERTAKEN TWO RECENT STUDIES UNDER EPU & PEMANDU(ETP) WHICH REACHED SIMILAR CONCLUSIONS Why liberalize and a case for change PART 7 FOR AMENDMENTS TO THE ENGINEERS' ACT THE MODE OF **ACCESS MUST BE CONSIDERED** Mode 1, Mode 2, Mode 3 and Mode 4 PART 8 WHAT NEEDS TO BE DONE FOR THE REGISTRATION OF **ENGINEERS ACT** Taking the next bold step PART 9 LIBERALIZATION DOES NOT MEAN DEREGULATION That is why "safeguard" measures are **PART 10 BOARD OF ENGINEER HAS DEVELOPED A 'SAFEGUARD' MEASURE** Which mimics the developed countries measures

The Professional Acts have previously been amended several times since 1967

Primarily to 'plug' the 'loopholes' as the Profession evolved...

OVERVIEW OF PREVIOUS AMENDMENTS

	REGISTRATION OF ENGINEERS ACT 1967 (ACT 138)	ARCHITECTS ACT 1967 (ACT 117)	QUANTITY SURVEYORS ACT 1967 (ACT 487)
LIST OF AMENDMENTS	1972	1972	1972
	1973	1973	1973
	1974	1974	1974
	1987	1979	1981
	2002	1988	1984
	2007	1992	1989
		1994	2001
		2002	2002
		2007	
TOTAL NO. OF AMENDMENTS	6	9	8

The Amendments to the Registration of Engineers Act

Primarily Driven by the Government's Commitments in International Free Trade Agreements (FTA)

The Free Trade Agreements (FTA) Focused on the Liberalization of Goods & Supply of Services

Liberalisation

Goods

Services

Reduction in tariffs

Disbandment of Non-Tariff Barriers

Crossborder trade

Consumption abroad

Commercial presence (FDI)

Movement of natural persons













MALAYSIA'S CURRENT COMMITMENTS IN INTERNATIONAL FTAS



^{*} Under ASEAN membership

Malaysia's liberalization efforts are predominantly focused within Asia Pacific and nearby regions...

MALAYSIA'S INTERNATIONAL FREE TRADE AGREEMENTS

MULTILATERAL

Global Trade Organizations

World Trade Organization (1st. Jan. 1995)

Global Free Trade Agreements

General Agreement on Trade in Services (Jan 1995)

REGIONAL

Regional Free Trade Agreements

AFTA (Jan 1992) AFAS (Dec 1995) TPP (Under negotiations) EU (Under negotiations)

Liberalization Framework

AFAS - Progressive liberalisation of selective sectors (Dec 1995)

BILATERAL

Bilateral Free Trade Agreements

- •ASEAN-China (Jul 2003)
- •ASEAN Japan (Oct 2003)
- •ASEAN-Korea (Dec 2005)
- •ASEAN-Australia/NZ (Jan 2010)
- •ASEAN India (Jan 2010)

Bilateral Free Trade Agreements

- •Malaysia-Japan (Dec 2005)
- •Malaysia-Pakistan (Jan 2008)
- •Malaysia-New Zealand (Oct 2009)
- •Malaysia Chile (Nov 2010)
- •Malaysia Aust (May 2012)
- •Malaysia-USA (Under negotiations)

WHAT IS LIBERALIZATION?

WHAT?

HOW?

WHY?

Liberalization is relaxation of of government restrictions, usually in areas of social or economic policy

Reduce government involvement in business and the removal of barriers to doing business Create a more favorable investment environment characterized by ease of conducting business

Liberalization benefits the economy by creating a conducive business environment...

KEY THRUST TOWARDS LIBERALIZATION

Reform of Regulations

Removal of barriers to doing business

RESULT: More favorable operating environment and investment climate

Liberalisation of Entry Conditions

Liberalisation of Entry, Ownership and Operations

Result: Attract foreign players into Malaysia and allow domestic players better access to international markets

Relax the extent of procedures to operate business

RESULT: Fosters growth by enabling quick execution of business decisions

Capacity Building

Supporting local players to enhance their long term competitiveness

RESULT: To ensure that local players are ready to compete with foreign players

Leverage established mechanisms like Talent Corporation

RESULT: Establish stronger interagency linkages

Source: Pemandu

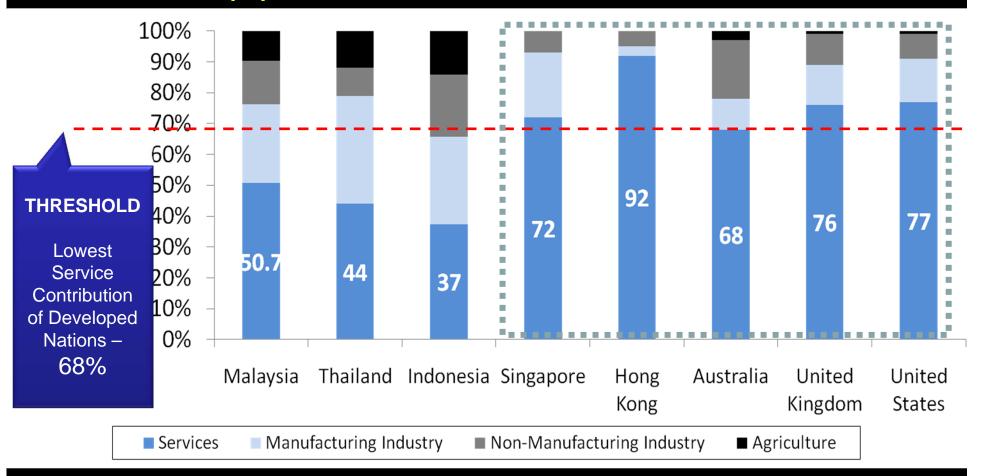
Therefore, Malaysia should adopt a concerted execution of building capacity, easing regulations and opening doors...

Is Malaysia's Economy Progressing Towards a Developed Nation Status?

Or slowing down and needs to be changed & fixed....

SERVICE SECTOR BENCHMARKING

Sectoral share (%) of GDP

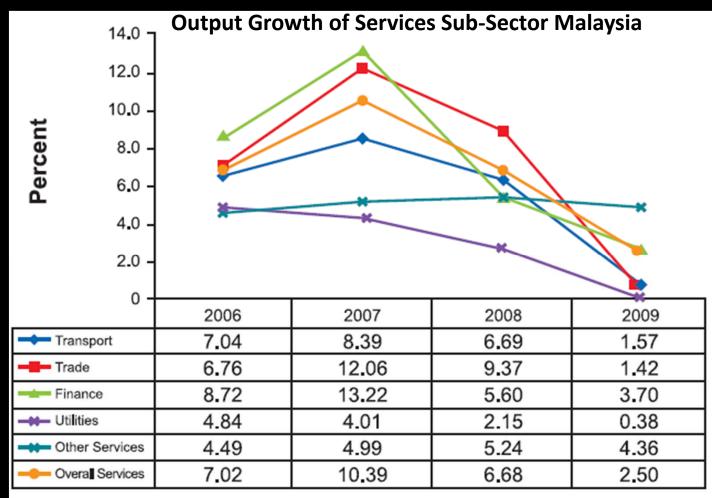


Sourced from Global Competitiveness Report 2010 - 2011

Sources: The World Bank; Economist Intelligence Unit. Note: Data are for 2008 or the most recent year available.

Contribution of services to GDP in Malaysia is low compared to the developed nations; we need to increase this by....

SERVICES SECTOR PRODUCTIVITY



Extracted from Malaysian Productivity Report 2009 (Malaysia Productivity Corporation)

Despite the increased investment, output growth of the services sector is slowing.....

GLOBAL COMPETITIVENESS RANKING



Global Competitiveness Index 2010–2011 & 2009-2011Rankings

Country	Rank		Score	
	2010- 2011	2009- 2010	2010- 2011	2009- 2010
Singapore	3	3	5.48	5.55
United States	4	2	5.43	5.59
Hong Kong	11	11	5.30	5.22
United Kingdom	12	13	5.25	5.19
Australia	16	15	5.11	5.15
Malaysia	26	24	4.88	4.87
Thailand	38	36	4.51	4.56
Indonesia	44	54	4.43	4.26

Rankings based on 12 pillars of competitiveness:

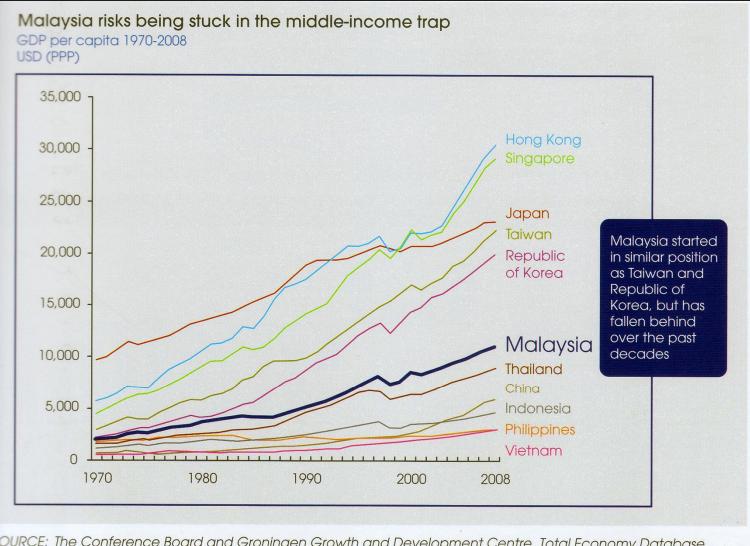
1) Institutions; 2) Infrastructure; 3) Macroeconomic stability; 4) Health and primary education; 5) Higher education and training; 6) Goods market efficiency; 7) Labor market efficiency; 8) Financial market sophistication; 9) Technological readiness; 10) Market size; 11) Business sophistication; and 12) Innovation

Sourced from Global Competitiveness Report 2010 – 2011 & 2008-2009

7 Hong Kong

Malaysia's competitiveness has also decreased over 3 years...

MALAYSIA'S OVERALL ECONOMIC STANDING



SOURCE: The Conference Board and Groningen Growth and Development Centre, Total Economy Database, January 2009

We have not improved significantly & is stuck

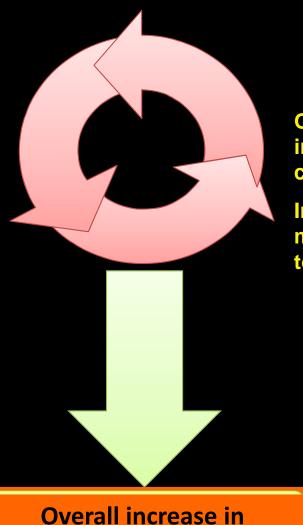
How Do We Get Back on Track

To transform the Malaysian economy...

THREE STRATEGIC REFORMS TO IMPROVE THE OVERALL COMPETITVENESS OF THE SERVICE SECTOR

Standards

Improves quality of Malaysian services, allowing Malaysian firms to procure locally and export overseas e.g. BEM accredits engineering degrees to meet the Washington Accord Agreement.



Liberalization of Services

Open markets to foreign investment, encouraging competition.

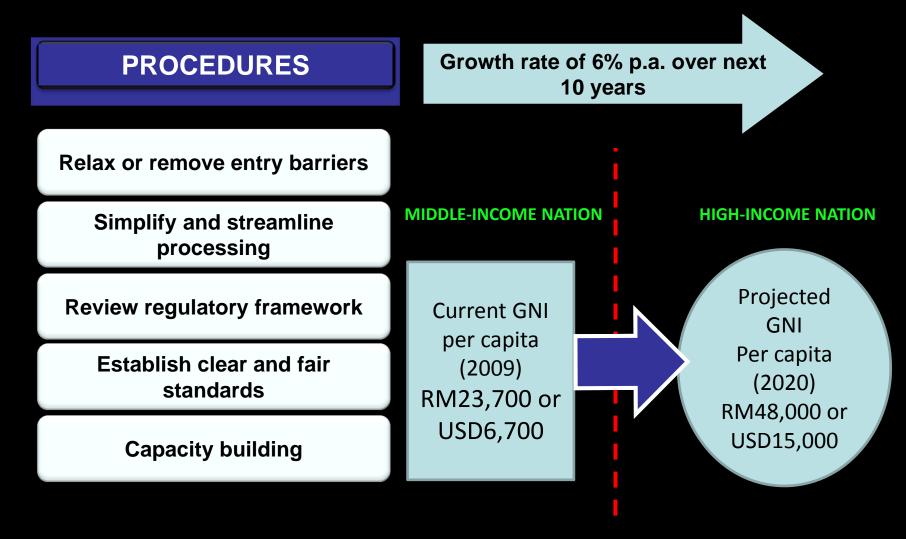
Improves access to international markets allowing Malaysian firms to export overseas.

Competition Law

Competition Act 2010 aims to protect economic development and consumer interest through preventing anti-competitive practices and abuse of a dominant position

Overall increase in Competitiveness

WHAT NEEDS TO BE DONE – SIZE OF THE PRICE



Steps need to be taken to tap the potential of the services sector to achieve a high-income nation status....

For the Services sector these have been identified by the Government

Under the IMP3 and NKEA (Strategic Reform Initiatives)....

MALAYSIA'S COMMITMENTS IN ASEAN FOR SERVICES

(Asean Framework Agreement on Services Timeline)

	IMP3 & NKEA PROMOTED SERVICES SECTOR			
	PRIORITY SECTORS		NON-PRIORITY SECTORS	
SERVICE SECTOR	(1) ICT, (2) Tourism, (3) Healthcare	(1) Logistics	(1) Business & Professional Services, (2) Distributive Trade, (3) Construction, (4) Education, (5) Oil, Gas & Energy	
END DATE FOR LIBERLISATION	2010	2013	2015	
FOREIGN EQUITY PARTICIPATION	- 49% by 2006 - 51% by 2008 - 70% by 2010	- 49% by 2008 - 51% by 2010 - 70% by 2013	- 30% by 2006 - 49% by 2008 - 51% by 2010 - 70% by 2015 * Construction not less than 51% by 2006	

PROFESSIONAL SERVICES INDUSTRY STRUCTURE

PROFESSIONAL SERVICES

Central Product Classification (CPC)

REGULATED SECTORS

(Governed by Acts of Parliament)

Legal (AG) – CPC 86190
Accounting (MOF) – CPC 862
Taxation (MOF) – CPC 863
Architectural (MOW) – CPC 8671
Engineering (MOW) – CPC 8672
Urban Planning (MOHLG) – CPC 8674
Quantity Surveying (MOW) – None yet

UNREGULATED SECTORS

(Not governed by any Acts of Parliament)

Integrated Engineering (MOW) – CPC 8673 Landscape architecture (MOHLG) CPC 8674

The professional services sector consists of various sub-segments that play a crucial role in economic growth...

MALAYSIA'S ASEAN COMMITMENTS

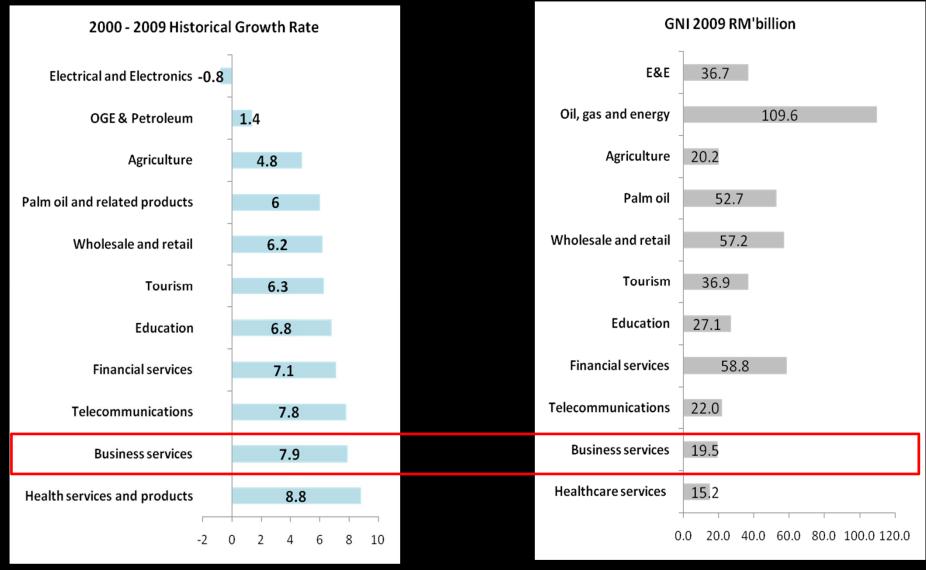
	PROFESSIONAL SERVICES SECTOR (Foreign Equity)
AFAS Threshold for Equity (Asean Framework Agreement on Services)	2008 : 49% 2010 : 51% 2015 : 70%
AFAS 8 th Package	Multi-disciplinary Practice (MDP): 30% open to anybody/persons (Architectural, Engineering & Quantity Surveying) Single-disciplinary Practice (SDP) Architectural (CPC 8671) : 0% Engineering (CPC 8672) : 0% Integrated Engr (CPC 8673) : Unregulated Quantity Surveying(None yet) : 0%
Cabinet Decision 14 November 2008	2012 : 100%
Budget 2012 Announcement by YAB Prime Minister 7 October 2011	Architectural : 100% by 2012 Engineering : 100% by 2012

Till to-date the professional acts have not been fully amended to reflect Malaysia's commitments and SDP firms have not been offered in any agreements....

For the Professional Services the Government has conducted two recent studies by EPU and PEMANDU(ETP) which reached similar conclusions

Why liberalize and a case for change....

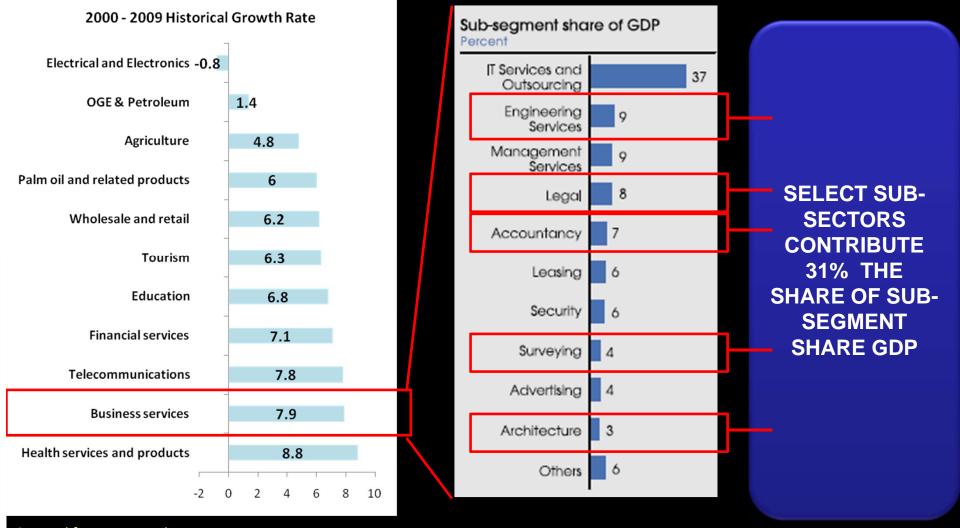
SERVICES SECTOR PERFORMANCE



Sourced from ETP (Pg 403) Roadmap

Prioritization of the sectors was based on NKEA performance

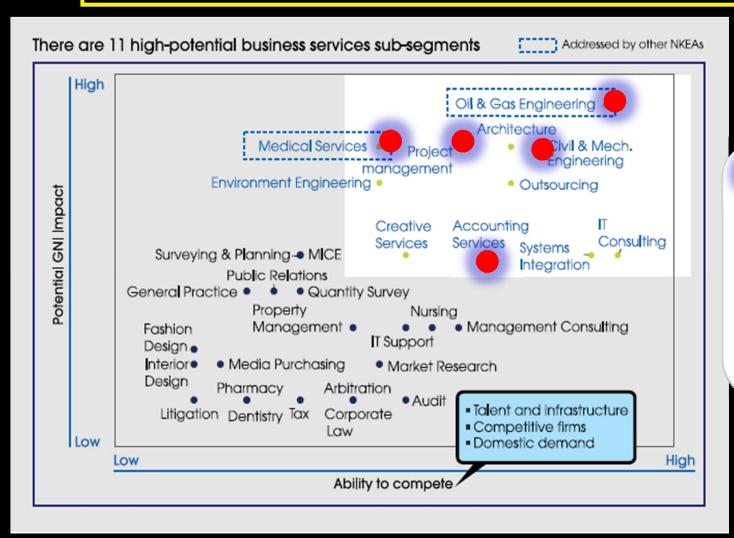
PROFESSIONAL SERVICES SUB-SECTOR



Sourced from ETP Roadmap

Professional services is the second fastest growing services sector with an historical growth rate of 7.9% annually...

PROFESSIONAL SERVICES GROWTH AREAS



HIGH IMPACT

- •Civil & Mech. Engr
- •Oil & Gas Engr
- •Environmental Engr
- Architecture
- •Information Tech.
- •etc.

Sourced from ETP Roadmap & EPU study reached similar conclusions

One of the high growth sectors is accredited professional services sector that comprise of engineering, architecture, medical ...

Worldwide View of the Professional Engineering Services Market

Global construction output in 2010 was about USD \$6 trillion

Global GDP in 2008 was about USD \$61 trillion and construction output is 10% of the GDP which makes construction an important industry.

The professional engineering services demand worldwide is USD \$270 billion in 2010 which is mainly in the following areas;

Transport	54%
Industry & Commercial buildings & facilities	20%
Land development	14%
Drainage, water & waste	12%

The global market is all about Quality, Integrity, Sustainability, Innovation and Capacity Building

Source: FIDIC – International Federation of Consulting Engineers

Can Malaysian Engineers get a slice of the pie....

Forecasts on the Professional Engineering Services Industry

- Firms are becoming more international and their workforces more multinational and mobile
- Developing countries is embracing knowledge intensive professional services by leveraging technology and offering low-cost solutions that hitherto would have been provided by well-established design and engineering consultants
- International market place for consulting engineering is becoming more competitive as new players enter the market
- Fees earned in international markets over the next three years see significant growth in the Middle East, China, the Indian sub-continent, South East Asia and Africa.

Source: FIDIC - International Federation of Consulting Engineers

Malaysian Engineers have a competitive edge of being highly technical and relatively "cheap" but

PROFESSIONAL SERVICES INDUSTRY OF MALAYSIA

CURRENT STATE OF THE INDUSTRY

- 1 Sector lacks capacity to compete on a bigger scale
- Professional services sector are predominantly made up of small firms

- **2** Restrictions on foreign professional services firms
- There are many restrictions against foreign firms practicing in Malaysia
- Restrictions on foreign professionals
- Foreign
 professionals are
 restricted to
 practice in many
 ways

Amendments to the Professional Acts must focus on safeguarding & the protection of public interest & but at the same time ...

What about other countries?

- Australia a similar country to Malaysia in population and has the lowest contribution to GDP from the service sector for an OECD country.
- Australia is not in the top 10 of exporters of engineering consultancy services when compared to the USA, UK, Netherlands or Canada.
- The professional engineering industry is similar to Malaysia being dominated by many small firms.
- Revenues from professional engineering services amount to Aust\$18 billion per year contributing to 1.85% of Australia's GDP.
- Of which Aust\$700 million is earned from export overseas.
- Employment in Australia in the engineering consultancy industry has risen by 58% since 2001/02.

Source: ACEA – Association of Consulting Engineers Australia

And yet there is no Engineers' or Architects' Act to "protect" the professional ...

For amendments to the Engineers' Act the Mode of Access must be considered

Mode 1 Cross-border trade

Mode 2 Consumption abroad

Mode 3 Commercial presence

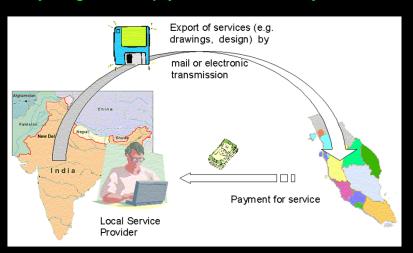
Mode 4 Movement of natural persons

The Supply of Professional Services

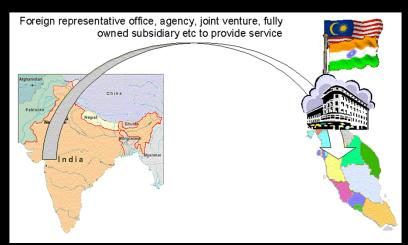
Modes of Access

Mode 1 – Cross Border Trade

Many design services/payment are electronically transmitted

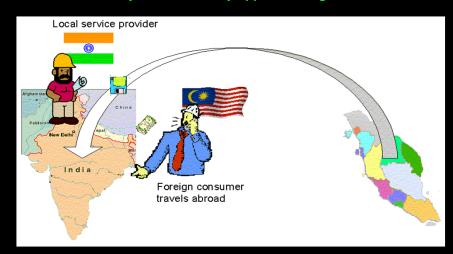


Mode 3 - Commercial Presence
Currently not possible under the Professional Acts

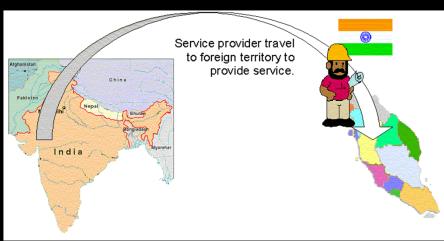


Mode 2 – Consumption Abroad

Many Clients already appoint foreign firms



Mode 4 – Presence of Natural Person
Currently not possible under the Professional Acts
(Except thro' temporary registration)



GENERAL REQUIREMENTS TO CONSIDER IN AMENDING THE ENGINEERS ACT

GATS stipulates that measures relating to qualification requirements and procedures, technical standards and licensing requirements should not constitute unnecessary barriers to trade in services.

Rules & procedures should be;

- Based on objective & transparent criteria, such as competence and the ability to supply the service.
- Not more burdensome than necessary to ensure the <u>quality of</u> <u>service</u>.
- In the case of licensing procedure not in themselves <u>a</u> restriction on the supply.

Note: Certification, licensing etc. of service suppliers may be based on MRA or may be accorded autonomously.

What needs to be done for the Registration of Engineers Act

Taking the next bold step...

CURRENT SECTIONS IN THE ENGINEERS' ACT TO BE AMENDED IN VIEW OF LIBERALISATION

Professional engineering services involved movement of natural_persons and commercial presence will require the Acts to be amended namely in two areas;

Registration of Professionals Engineers

Sections of the ACT to be amended to recognize the qualifications, experience and registration of an engineer irrespective of citizenship status.

- Section 7 Restrictions on unregistered persons etc.
- Section 8 Only Professional Engineers may submit plans, drawings etc.
- Section 10 Qualifications for registration
- Section 10A Registration of Temporary Engineers

Registration of Firms/Companies

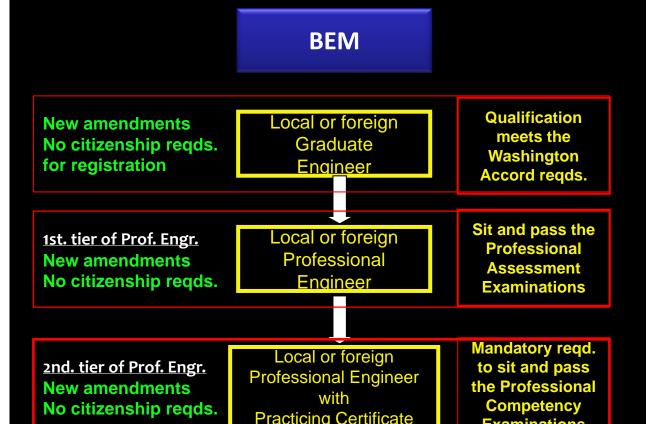
Sections of the ACT to be amended in the registration of Companies to be less restrictive especially with regards to equity and directorship.

- Section 7A Single Disciplinary Practice (SDP)
- Section 7B Multi-disciplinary Practice (MDP)

AMENDMENTS TO THE ACT IN SUMMARY **Registration of Natural Persons (Mode 4)**

Examinations

Deletion of citizenship requirements in Section 10(4) of the Act allows BEM to register Graduate and Professional Engineers of any nationality



1st. tier of registration of Prof. Engr who do not wish to have a "Practicing Certificate"

2nd. tier of registration of Prof. Engr. include a 'Licensing' scheme for those who wish to 'practise' & supply professional engineering services

AMENDMENTS TO THE ACT IN SUMMARY Commercial Presence (Mode 3)

As the BEM can register professional engineers of any nationality, the firms under which they provide the services may have 100% foreign equity

HOW PROFESSIONAL SERVICE IS PROVIDED	REGISTRATION WITH THE BOARD OF ENGINEERS MALAYSIA
INDIVIDUAL ENGINEERS	Engineers of any nationality can be registered with the Board.
SINGLE DISCIPLINARY PRACTICE Sole Proprietorship Partnership Body Corporate	100% foreign equity allowed with 30 % equity open to all and 70% for Professional Engineers with Practicing Certificate for body corporate
MULTI-DISCIPLINARY PRACTICE Body Corporate	100% foreign equity allowed with 30% equity open to all and 70% equity for Prof. Eng/Arch/QS (Existing Act already allow)
MANAGEMENT OF THE FIRM OR BODY CORPORATE	At least 2/3s of the Directors in the Board of Directors must be Professional Engineers with Practicing Certificates

AMENDMENTS TO THE ACT IN SUMMARY Commercial Presence (Mode 3)

Local or foreign engineers can register with BEM under Section 10 & hence can set-up a business entity registered with BEM.

Registration with Boards as a Business Entity

Engineering Consultancy Practice (Section 7A)

Sole Proprietorship

Must be Professional Engineer (local or foreign) with Practising Certificate (P.C.)

Multi disciplinary practice registered under Section 7B to follow the same format for equity and Board of Directors under Section 7A.

Partnership

Partners must be Prof. Engineer (local or foreign) with Practising Certificate (P.C.)

Body Corporate

70% equity for local or foreign P.E. with P.C.

30% equity by any person/bodies

Equity prescribed in Regulations

Management of the Firm Board of Directors

At least 2/3s of Directors must be P.E. with Practising Certificate (local or foreign) Remaining 1/3 can be anybody/person and must named a P.E. with P.C. in charge

Composition of Board of Directors prescribed in Regulations

AMENDMENTS TO THE ENGINEERS ACT Temporary Registration & Others

	SUMMARY OF OTHER MAJOR AMENDMENTS	
TEMPORARY REGISTRATION OF FOREIGN PROFESSIONALS	Section 10A deleted since engineers of any nationality can be registered	
QUALIFIED PERSON UNDER THE BUILDING ACTS	Local or foreign Professional Engineers with Practicing Certificate	
	To register as a Graduate Engineer the basic qualifications shall meet the Washington Accord requirements	
TIME REQUIRED FOR REGISTRATION	Takes 3-4 years to be registered as a Professional Engineer after passing Professional Assessment Examination (PAE)	
	Additional 1-2 years to obtain a Practicing Certificate on passing the Professional Competency Examination (PCE)	
CONTINOUS PROFESSIONAL DEVELOPMENT	Annual 50 hours CPD mandatory with stringent check by BEM for P.E. with Practicing Certificate	
COMPOSITION OF THE BOARD	Minimum 50% must be P.E. with Practicing Certificate	
REGISTRATION OF OTHER PERSONS RELATED TO ENGINEERING	Registration of Engineering Technologist and Inspector of Works	
NAME OF ACT	Remain as the "Registration of Engineers Act"	

Liberalization does not mean deregulation

That is why safeguard measures are ...

THE BALANCING ACT

CONS

- Foreign providers crowd out domestic providers
- Potential outflow of money from Malaysia - with foreign providers and shareholders repatriating profits
- Increased risk of financial instability due to increased exposure to global economic events
- · Risk of brain drain
- Risk of environmental degradation



PROS

- Opportunity for Malaysia to compete internationally, -contributing to GDP growth and generating foreign exchange
- Improves the overall business environment
- 1. Introduction of international best practices, better skills and technology
- 2. Entry of foreign service providers can lead to better services for domestic consumers
- 3. Improve the performance and competitiveness of domestic service providers
- 4. Attract foreign direct investment into the country

Finding the right balance between liberalization and protectionism...

What are the Risks in Liberalizing the Professional Engineering Services ?

- Flooding of local market with cheaper foreigners. <u>Is it 'safe'</u> to allow foreign engineers to become the 'Submitting Person' under SDB Act & UBBL?
- Lower foreign standards with competitive prices may lead to lower local standards. By adopting the lower foreign standards, it will create hazards through the importation of these services. Can foreign engineers from less developed countries provide the service that safeguard public interest?
- <u>Can local Engineering Consultancy Practices be able to compete with foreign firms from developed countries?</u> And if not may create unemployment amongst local professionals.
- Engineering Consultancy Practise can be owned by nonengineers. <u>Is Malaysia ready for this ?</u>
- In a 'free market' the <u>consumers may not be sufficiently be</u> <u>protected</u> where standards and quality may be compromised

What are the Benefits & Opportunities?

- 1. Consumers benefits from wider choices and cheaper services, i.e. it encourages competition and lower the cost of services to be provided
- 2. Mutual recognition agreements implies reciprocity. Allowing access to our markets imply access to their markets.
- 3. Malaysian engineers are more competitive than that from developed countries, leading to increase opportunity for exports of professional services
- 4. Increase the competitiveness of Malaysian Engineers and align them to international practices
- 5. Expertise not locally available can be imported to enhance local capabilities i.e. technology transfer from foreign experts
- 6. Multi-national companies can set-up professional services bringing in FDI and make Malaysia as the regional headquarters for professional services and attract talent.
- 7. Malaysian firms can grow and allow their shares to be traded e.g. the medical profession is the most liberalize profession and has grown
- 8. High tech and emerging services industries (e.g. green technology, aeronautical technology etc.) can be fully developed when the professional services is liberalized with the inflows of foreign capital into Malaysia, which is important for the country to be a knowledge-based economy.

SAFEGUARD MEASURES ARE NECESSARY

THE RISKS OF LIBERALIZATION

To safeguard local and national policies so that are not negatively affected

To protect the public against hazards of sub-standard services by foreign imports

To ensure that liberalization promotes economic growth as originally intended

To minimize the affect on local professionals so that they can withstand the effects from the entry of foreign professionals.

To prepare capacity building programmes for local professionals

Safeguard measures in developed countries are even more comprehensive when compared to developing countries ...

Board of Engineers has developed a 'safeguard' measure

Which mimics the developed countries measures ...

Australia's "Safeguard" Measure is a National Competency Examination for Practitioners in the Building Industry

"There is no specific nationality, citizenship or residency requirements for registration by the National Engineering Registration Board or membership of Engineers Australia to practice as a professional engineer in Australia. <a href="However applicants must demonstrate awareness of national and local standards, rules and practices; and be assessed as meeting the National Competency Standards for Professional Engineers."

"Other than in Queensland, the engineering profession operates under a self-regulatory system and Engineers Australia offers grades of membership and Chartered Engineer titles, to identify those practitioners who have met certain competency levels. The National Engineering Registration Board overseas a national, voluntary, non-statutory register that maintain standards to the grade of Chartered Professional Engineer but operates separately to membership of Engineers Australia. This register is called up in some places of the State and Territory legislation to identify the competency of engineers in certain areas of practice, particularly in the building and construction industry.

"Most States and Territories in Australia have registration and/or licensing regime for engineering practitioners in the building and construction industry, with differing education and experience requirements".

Paper from Engineers Australia to Department of Foreign Affairs & Trade on the Australia – Malaysia Free Trade Agreement October 2004

Taiwan requires Test on Competency before Registration or Issuance of a License

Foreign Engineers to be Permitted to Practice in Taiwan, Jan. 14 2009

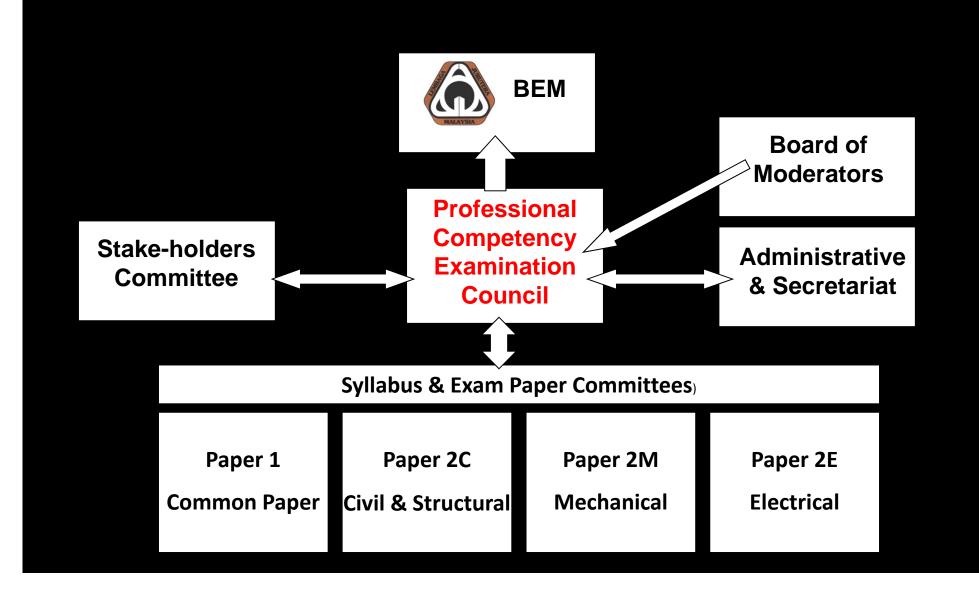
In order to improve the quality of Taiwan's engineering profession and promote the internationalization of Taiwan's engineering qualifications, Executive Yuan has recently approved a draft revision of the Professional Engineers Act, making provision under Article 56 for <u>certified engineers from countries with which Taiwan has concluded a MRA</u> to obtain accredited engineer certification by means of oral test or review and then <u>apply to practise as professional engineers in Taiwan.</u>

A foreign engineer who has been licensed to practice in Taiwan will be able to conduct professional engineering work and signing of engineering documents jointly with local engineers or independently and undertake other professional activities and all documents and drawings related to work undertaken in Taiwan must use Chinese as the primary language.

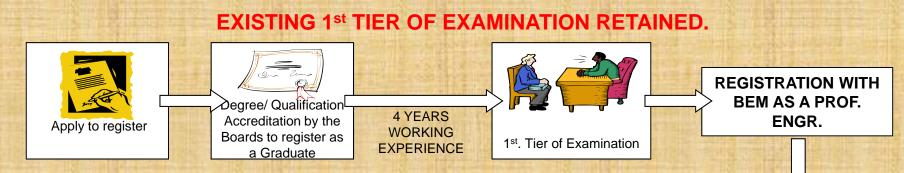
Typical Syllabus for Professional Practice Examination to Test Competency (Singapore)

PAPER 2(Syllabus) Specific for each discipline	TIME ALLOCATED – 4 hrs.	FORMAT – Answer 1 Compulsory Question & 4 out of 6 Questions
CIVIL SYLLABUS	MECHANICAL SYLLABUS	ELECTRICAL SYLLABUS
URA Planning control handbook	Piped services (Hot & Cold Water)	Code of Practice CP 2 (Lifts) up to CP97 (illumination)
SCDF Fire Codes/Practices	ACMV	Power supplies & Tariffs
LTS, rapid transit, railway zones, streets, etc.	Fire Services	Protection for safety, cables, earthing
NEA, CP environmental health, pollution	Lift & Hoisting Systems, Other Mech. Systems	Lightning Protection, Emergency Lights
PUB, CP drainage, sewage	Energy Conservation	Generators, Fire Alarms
Nparks, Guidelines	Relevant CP's Standards	Emergency Voice System
BCA, Buildable Design, NPQS	All relevant S'pore CP's and Standards	Testing & Commissioning
Civil eng'g CP & Standards		

BEM to conduct the Professional Competency **Examination under the amendments to the Act**



THE PROFESSIONAL COMPETENCY EXAMINATION (PCE) IN A NUTSHELL



Notes:

Registration with the BEM as a Graduate Engineer is straight-forward provided that conditions such as the basic qualifications are met (eg. Engineering degrees recognised under the Washington Accord).

Registration as a Professional with BEM after passing the 1st. tier examination. However if the foreign professionals can demonstrate the same applies to their home countries BEM may consider them to be registered without sitting the 1st. tier of examination or at least undergo the interview process.

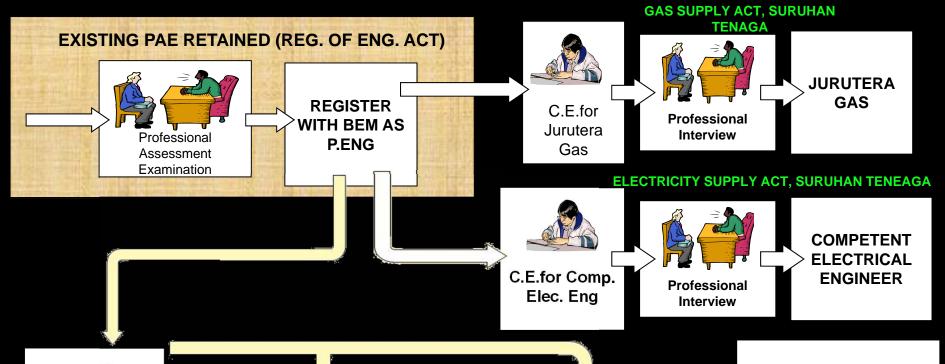
To 'practise' and supply professional services BEM will issue licenses upon passing the Professional Competency Exams i.e. the 2nd. tier of registration. This is compulsory for all professional engineers wishing to supply professional services.



LICENSED TO SUBMIT PLANS UNDER 'S.D.B. ACT'

..... AND FOR ENGINEERS

there are other Competency Examinations



Professional Competency Examination

PRACTICING
CERTIFICATE FOR
SUBMITTING PERSON
UNDER 'S.D.B. ACT'
(Building Industry)

PRACTICING CERTIFICATES FOR OTHER ENGINEERING DISCIPLINES NOTE THAT THE SPAN ACT NOW REQUIRES THE ENGINEER TO BE REGISTERED WITH THEM.

SAFEGUARD MEASURES IN SUMMARY

TO ENSURE THE QUALITY OF THE SERVICE & PROTECT PUBLIC INTEREST

BOARD OF ENGINEERS

1st. Safeguard Measure

Boards register Graduate Engineers provided that their under graduate degree meets the Washington Accord

Basic undergraduate degree meets Boards' requirements

2nd. Safeguard Measure

Board registers Professional Engineers provided they have obtained the required technical competence or obtained it through an accredited programme overseas

Pass the 1st. tier of examination

3rd. Safeguard Measure

Before the issue of a 'license' the Professional Engineer must demonstrate competence in understanding the national & local standards, rules, regulations & laws

Pass the 2nd. tier of examination i.e. the Competency Exams

4th. Safeguard Measure

The 'license' is renewable every year subject to the Professional Engineer have undergone Continuous Professional Development programmes accredited by the Board

Issued a 'license' to supply services which is renewable every year. The license is not perpetual Annual Continuous
Professional
Development (CPD)
is compulsory for
renewable of Prof.
Engr. status and
Prof. Engr. with
Practising Certificate

Note: CPD also applies at the 1st. tier of registration

WHAT OTHER SAFEGUARD MEASURES ARE NECESSARY

WHAT BOARD OF ENGINEERS CAN DO

Ensure the quality of local & foreign engineers by registration and issuance of a "license" for those wishing to supply professional engineering services

Ensure that the supply of professional engineering services shall be through firms/companies registered with the Board.

Undertake disciplinary actions against registered engineers and firms/companies

WHAT BOARD OF ENGINEERS IS UNABLE TO DO

No "policing" powers towards unregistered individuals or firms/companies providing professional engineering services. Board depends on other Government departments.

WHAT OTHER GOVERNMENT DEPARTMENTS & PUBLIC CAN ASSIST

Ensure that only "licensed" professional engineers supply professional engineering services through a registered firm/company with BEM.

Ensure that all professional engineering services are undertaken in Malaysia.

Ensure that foreign engineers have a valid work permit.

In cases whereby BEM initiate an investigation against an engineer under the Act; foreign engineers should be available to assist the Board during the investigation.

IS THE ENGINEERING PROFESSION SO LIBERAL COMPARED TO OTHER PROFESSIONS?

Surprisingly No !!!!!!!!!!!!!!!

The most liberal profession is the medical profession can we say the most "ethical" profession of all that deals directly with "life & death" situation.

The "Private Healthcare Facilities & Services Act 1998"

Section 6. Approval and licence may be issued to a sole proprietor, partnership or body corporate.

- (1) Approval to establish or maintain, or a license to operate or provide may only be issued to
 - (a) a sole proprietor who is a registered medical practitioner;
 - (b) a partnership which consists of at least one partner who is a registered medical practitioner; or
 - (c) a body corporate whose Board of Directors consists of at least one person who is a registered medical practitioner

And equity is open any person or bodies

Conclusion ...Liberalization to Achieve Real Growth

One of the Growth Propellers

Professional

Engineering

Services

Contribute To Targeted GNI Per capita By (2020) RM48,000 or USD15,000

REAL GROWTH RATE OF 6% P.A. OVER NEXT 10 YEARS

End Objective

To become the regional hub for niche area in professional engineering services

To untapped potential of professional engineering services as a key enabler of business

To promote hightech engineering services

Or do Malaysia has an alternative choice at all?.....

And on to the details of the amendment

THANK YOU